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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,703

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Hidehiko Oota

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DICKINSON WRIGHT PLLC
1901 L STREET NW
SUITE 800
WASHINGTON, DC 20036

EXAMINER

CHEN, TIANJIE

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,703	Applicant(s) OOT, HIDEHIKO	
	Examiner Tianjie Chen	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,8 and 16 is/are rejected.
- 7) ☒ Claim(s) 2,4-7 and 9-15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Non-Final Rejection

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. PT/JP04/17325, filed on 11/16/2004.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Sudo et al (US 6,252,319).

Claim 1, Sudo et al shows a chucking apparatus Fig. 4 in which a plurality of pawl bodies 45 are provided in a radial direction of a hub body 36 of a turntable such that said pawl bodies can move, a center hole of a disk is pressed by said pawl bodies to hold said disk, wherein

said chucking apparatus comprises a resilient member (Fig. 4) for biasing said pawl bodies outward of said hub body,

each of said pawl bodies includes a pawl portion which comes into contact with said disk, and a pawl-side stopper for limiting outward movement of said pawl bodies caused by said resilient member,

said hub body includes a pawl opening through which said pawl portion can project outward, and a hub-side stopper which abuts against said pawl-side stopper, and

a contact surface of a lower end of said pawl body 45 with respect to a lower part is of an arc shape.

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Claim 3, Sudo et al shows in Fig. 4 that a coil spring is used as said resilient member, and an abutment position between said pawl-side stopper and said hub-side stopper is lower than a center line of said coil spring.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi (JP 2000-67497A) in view of Sudo et al.

Higuchi shows a chucking apparatus Fig. 1 in which a plurality of pawl bodies 9 are provided in a radial direction of a hub body 7 of a turntable such that said pawl bodies can move, a center hole of a disk is pressed by said pawl bodies to hold said disk, wherein

said chucking apparatus comprises a resilient member 10 for biasing said pawl bodies outward of said hub body,

each of said pawl bodies includes a pawl portion which comes into contact with said disk, and a pawl-side stopper 9d for limiting outward movement of said pawl bodies caused by said resilient member,

said hub body includes a pawl opening through which said pawl portion can project outward, and a hub-side stopper 15 which abuts against said pawl-side stopper, and

a contact surface of a lower end of said pawl body with respect to a lower part. is of an arc shape.

said pawl-side stopper which limits the movement of said pawl body caused by said resilient member is provided closer to a tip end as compared with a contact portion between said pawl-side stopper

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and a lower end of said pawl body and of a lower part in a standby state where said disk is not held by said pawl portion, and said hub-side stopper which abuts against said pawl-side stopper has an inclined surface whose lower side is close to a tip end side.

Higuchi does not show a contact surface of a lower end of said pawl body with respect to a lower part is of an arc shape.

Sudo shows that a contact surface of a lower end of said pawl body with respect to a lower part. is of an arc shape. It is obvious that the arc shaped surface would make the chucking process smoother. One of ordinary skill in the art would apply the arc shaped surface into Higuchi's device.

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ishigami et al (US 4,398,280) in view of Sudo et al.

Claim 16, Ishigami et al shows a disk apparatus using the chucking apparatus in Fig. 4 includes a chassis outer sheath including a base body and a lid, a front surface of said chassis outer sheath is formed with a disk inserting opening in which a disk is directly inserted, a traverse provided on said base body holds a spindle motor and a pickup, an upper surface of said spindle motor includes said turntable, and said traverse is moved toward and away from said base body and a hub 13 but does not show the structure of the hub.

Sudo et al shows a choking apparatus as described above and teaches that can firmly mounting the disk and the number of the parts is reduced and the assembly operability is improved (Column 3, lines 1-3). One of ordinary skill in the art would have been motivated to add the chucking mechanism into Ishigami et al's device.

Allowable Subject Matter

5. Claims 2, 4-7, and 9-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

- With regard to claims 2, 4, and 5; as the closest reference of record, Sudo et al (US 6,252,319) discloses a chucking apparatus in which a plurality of pawl bodies are provided in a radial direction of a hub body of a turntable such that said pawl bodies can move, a center hole of a disk is pressed by said pawl bodies to hold said disk, wherein said chucking apparatus comprises a resilient member for biasing said pawl bodies outward of said hub body, each of said pawl bodies includes a pawl portion which comes into contact with said disk, and a pawl-side stopper for limiting outward movement of said pawl bodies caused by said resilient member, said hub body includes a pawl opening through which said pawl portion can project outward, and a hub-side stopper which abuts against said pawl-side stopper, and a contact surface of a lower end of said pawl body with respect to a lower part is of an arc shape; **but fails to show** that a position of said pawl portion in a standby state where said disk is not held by said pawl portion is set lower than a position of said pawl portion in a recording/replaying state where said disk is held by said pawl portion.
- With regard to claims 6, 7, 9, and 10; as the closest reference of record, Sudo et al (US 6,252,319) discloses Sudo et al shows a chucking apparatus in which a plurality of pawl bodies are provided in a radial direction of a hub body of a turntable such that said pawl bodies can move, a center hole of a disk is pressed by said pawl bodies to hold said disk, wherein said chucking apparatus comprises a resilient member for biasing said pawl bodies outward of said hub body, each of said pawl bodies includes a pawl portion which comes into contact with said disk, and a pawl-side stopper for limiting outward movement of said pawl bodies caused by said resilient member, said hub body includes a pawl opening through which said pawl portion can project outward, and a hub-side stopper which

abuts against said pawl-side stopper, and a contact surface of a lower end of said pawl body with respect to a lower part is of an arc shape; **but fails to show** that said pawl portion is moved outward and a position of said pawl portion becomes lower in a case where a thickness of said disk is thin in a recording/replaying state where said disk is held by said pawl portion, as compared with a case where said disk is thick.

- With regard to claims 11-15; as the closest reference of record, Sudo et al (US 6,252,319) discloses Sudo et al shows a chucking apparatus in which a plurality of pawl bodies are provided in a radial direction of a hub body of a turntable such that said pawl bodies can move, a center hole of a disk is pressed by said pawl bodies to hold said disk, wherein said chucking apparatus comprises a resilient member for biasing said pawl bodies outward of said hub body, each of said pawl bodies includes a pawl portion which comes into contact with said disk, and a pawl-side stopper for limiting outward movement of said pawl bodies caused by said resilient member, said hub body includes a pawl opening through which said pawl portion can project outward, and a hub-side stopper which abuts against said pawl-side stopper, and a contact surface of a lower end of said pawl body with respect to a lower part is of an arc shape; **but fails to show** an inner side upward guide is provided on an inner portion of said pawl body, said inner side upward guide **gradually becomes higher toward inside**, and said pawl portion moves inward by pressing said pawl portion is pushed from above.
- Applicant asserts; “it is possible to reduce a load when a disk is inserted, variation in load can be accepted, and the chucking apparatus can be operated stably.” (Specification, p. 6).

Conclusion

6. The prior art made of record in PTO-892 form and not relied upon is considered pertinent to applicant's disclosure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tianjie Chen/
Primary Examiner, Art Unit 2627